IN THE CLAIMS:

Claims 1-12. Cancel

Claim13 (Original) A resistive heating vacuum deposition process to deposit powdered phosphor, comprising:

providing a quantity of powdered phosphor, placing the powdered phosphor in a tantalum boat,

resistively heating the powdered phosphor,

depositing by vacuum deposition the heated powdered phosphor on a surface, and

annealing the deposited powdered phosphor.

Claim14 (Original) The process of Claim 13, additionally including depositing a coating of a selected metal on the annealed phosphor surface.

Claim15 (Original) The process of Claim 13, additionally including supplying the quantity of powdered phosphor from a powdered phosphor comprising Zn, CD, (S).

Claim16 (Original) The process of Claim 13, wherein resistively heating the powdered phosphor is carried out in a temperature range of 350° to 600°C.

Claim 17 (Original) The process of Claim 13, wherein the vacuum deposition is carried of at a pressure of $1x10^{-4}$ to $1x10^{-7}$.

Claim 18 (Original) The process of Claim 13, wherein the powdered phosphor is deposited to a thickness of 2,500 to 10,000 Angstroms.

Claim19 (Original) The process of Claim 13, wherein the annealing is carried out at a temperature of 400° to 600°C for a time period of 15 min. to 2 hours.

Claim 20 (Original) The process of Claim 13, wherein the annealing produced a phosphor surface having a smoothness in the range of 10nm to 30nm.

Claim 21 (Original) The process of Claim 14, wherein the coating of a selected metal is composed of metals selected from the group consisting of aluminum, gold and silver.

Claim 22 (Original) The process of Claim 21, wherein the selected metal is composed of aluminum with a thickness in the range of 400 to 1000 Angstroms.

Claim 23 (New) The process of Claim 14, wherein said metal is deposited directly the annealed phosphor surface onto.